

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A system for improved load balancing in a client/server environment, comprising:

at least one caching/ hashing switch (CHS) coupled between clients and servers in said client/server environment, said CHS storing previously-requested objects, said CHS comprising:

a hashing switch coupled to said servers; and

a front end cache coupled between said clients and said hashing switch;

wherein object requests for objects stored in said CHS are satisfied immediately from said CHS.

2. (Original) The systems of claim 1, wherein said CHS also hashes object requests, and wherein:

object requests which are not stored in said CHS are hashed;

each of said hashed object requests are forwarded to a respective server on which each requested object is stored;

each of said requested objects is forwarded to said CHS and stored thereon; and

a copy of each of said requested objects is returned to a respective client requesting said object.

3. (Original) The system of claim 2, wherein said objects are web objects and wherein said CHS comprises:

a web proxy cache; and

a URL-hashing switch coupled to said web proxy cache.

4. (Previously Presented) The system of claim 2, wherein said objects are web objects and wherein said CHS comprises:

computer usable code configured to operate as a web proxy cache for storing retrieved web objects; and

computer usable code configured to operate as a URL-hashing switch, for hashing said web object requests and forwarding said hashed web object requests to said respective servers.

5. (Original) The system of claim 4, wherein said client/server environment comprises a plurality of clients coupled to at least one server farm via a network connection.

6. (Original) The system of claim 4, wherein said client server environment comprises a plurality of clients coupled to a plurality of server farms via a network connection, and wherein each of said server farms has a CHS associated therewith, and wherein said system further comprises:

a Level 4 switch coupled between said network connection and said CHS's.

7. (Previously Presented) A method of improved load balancing in a client/server environment, comprising:

receiving an object request from a client;

determining if the object requested by said object request is stored in a cache coupled between said client and a hashing switch coupled to a server farm;

if said object is stored in said cache, immediately returning a copy of said object to said client; and

if said object is not stored in said cache, then:

hashing said object request using said hashing switch;

forwarding said hashed object request to said server farm;

forwarding said requested object from said server farm to said cache for storage;

and

returning a copy of said requested object to said client.

8. (Previously Presented) A computer program product for providing improved load balancing in a client/server environment, the computer program product comprising a computer usable medium having computer usable program code embodied therein, the computer usable program code comprising:

computer usable program code configured to receive an object request from a client;

computer usable program code configured to determine if the object requested by said object request is stored in a cache coupled between said client and a server farm;

computer usable program code configured to immediately return a copy of said object to said client if said object is stored in said cache;

computer usable program code configured to hash said object request;

computer usable program code configured to forward said hashed object request to said server farm;

computer usable program code configured to forward said requested object from said server farm to said cache for storage; and

computer usable program code configured to return a copy of said requested object to said client.

9. (Previously Presented) An improvement to a load balancing system in a client/server environment having at least one client coupled, via a network connection, to a plurality of servers, and a hashing switch coupled between said network connection and said plurality of servers, said improvement comprising:

a cache coupled between said network connection and said hashing switch, said cache storing previously requested objects and configured to satisfy requests for said previously requested objects without passing said requests to said hashing switch.

10. (New) A computer hardware device for improved load balancing in a client/server environment, comprising:

means for receiving an object request from a client;

means for determining if the object requested by said object request is stored in a cache coupled between said client and a hashing switch coupled to a server farm;

means for, if said object is stored in said cache, immediately returning a copy of said object to said client; and

means for, if said object is not stored in said cache:

hashing said object request using said hashing switch;

forwarding said hashed object request to said server farm;

forwarding said requested object from said server farm to said cache for storage;
and
returning a copy of said requested object to said client.